

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (CURRENTLY AMENDED) A vehicle-based control system for use with a barrier operating system comprising a motor for opening and closing a barrier, a receiver in communication with the motor, and a remote transmitter for transmitting an activation signal, the activation signal comprising a radio frequency carrier signal modulated with a codeword, the activation signal for receipt by the receiver for use in activating the motor to open and close the barrier, the control system comprising:

(a) a transceiver to be mounted in a vehicle and configured to

(1) receive sampled versions of a plurality of radio frequency carrier signals, and

(2) transmit an activation signal for receipt by the barrier operating system receiver; and

(b) a controller to be mounted in a vehicle in communication with the transceiver and a user input device, the controller configured to

(1) store the sampled versions of the plurality of ~~received~~ radio frequency carrier signals in a digital radio frequency memory (DRFM),

(2) receive user input identifying an activation scheme having at least a variable codeword format associated therewith, and

(3) in response to the user input,

(i) generate a variable codeword based on the identified activation scheme,

(ii) select ~~one of the plurality of stored~~ a radio frequency carrier signal corresponding to one of the sampled versions of the radio frequency carrier signals ~~from the DRFM~~ based on the identified activation scheme and transfer the sampled version of the selected radio frequency carrier signal from the DRFM to the transceiver, and

(iii) control the transceiver to transmit an activation signal comprising the sampled version of the selected radio frequency carrier signal modulated with the generated variable codeword.

2. (ORIGINAL) The system of claim 1 wherein

(a) the transceiver is further configured to receive an activation signal from the barrier operating system transmitter, wherein the codeword of the received activation signal is fixed, and

(b) the controller is further configured to

(1) store the fixed codeword of the received activation signal,

(2) sample the carrier signal of the received activation signal, and

(3) control the transceiver to transmit an activation signal comprising the sampled carrier signal modulated with the stored fixed codeword in response to user input.

3. (ORIGINAL) The control system of claim 1 wherein the controller is further configured to receive an indication whether the activation signal transmitted by the transceiver successfully operated the barrier operating system.

4. (CURRENTLY AMENDED) The system of claim 1 wherein the sampled versions of the plurality of radio frequency carrier signals are received by the transceiver and stored by the controller in the DRFM in a system set-up mode.

5. (ORIGINAL) The system of claim 1 wherein the user input device comprises at least one button.

6. (ORIGINAL) The system of claim 1 wherein the user input device comprises a touch-screen display.

7. (CANCELLED)

8. (PREVIOUSLY PRESENTED) The system of claim 2 wherein the controller uses the DRFM to sample the radio frequency carrier signal of the received activation signal.

9. (CANCELLED)

10. (PREVIOUSLY PRESENTED) A vehicle-based control system for use with a barrier operating system comprising a motor for opening and closing a barrier, a receiver in communication with the motor, and a remote transmitter for transmitting an activation signal, the activation signal comprising a radio frequency carrier signal modulated with a fixed codeword, the activation signal for receipt by the receiver for use in activating the motor to open and close the barrier, the control system comprising:

(a) a transceiver to be mounted in a vehicle and configured to

(1) receive an activation signal from the barrier operating system transmitter, and

(2) transmit an activation signal for receipt by the barrier operating system receiver; and

(b) a controller to be mounted in a vehicle in communication with the transceiver and a user input device, wherein the controller comprises a digital radio frequency memory (DRFM) and is configured to

(1) store the fixed codeword of the received activation signal,

(2) sample the carrier signal of the received activation signal using the DRFM and transfer the sampled carrier signal from the DRFM to the transceiver, and

(3) control the transceiver to transmit an activation signal comprising the sampled carrier signal modulated with the stored fixed codeword in response to user input.

11. (ORIGINAL) The system of claim 10 wherein the user input device comprises at least one button.

12. (ORIGINAL) The system of claim 10 wherein the user input device comprises a touch-screen display.

13. (CURRENTLY AMENDED) A vehicle-based control method for use with a barrier operating system comprising a motor for opening and closing a barrier, a receiver in communication with the motor, and a remote transmitter for transmitting an activation signal, the activation signal comprising a radio frequency carrier signal modulated with a codeword, the activation signal for receipt by the receiver for use in activating the motor to open and close the barrier, the control method comprising:

(a) identifying an activation scheme having at least a variable codeword format associated therewith;

(b) generating a variable codeword based on the identified activation scheme;

(c) storing sampled versions of a plurality of radio frequency carrier signals in a digital radio frequency memory (DRFM); and

(d) selecting ~~one of the plurality of stored~~ a radio frequency carrier signal corresponding to one of the sampled versions of the radio frequency carrier signals from the DRFM based on the identified activation scheme, the sampled version of the selected radio frequency carrier signal and the generated variable codeword for use in transmitting an activation signal.

14. (CURRENTLY AMENDED) The method of claim 13 further comprising transmitting an activation signal comprising the sampled version of the selected carrier signal modulated with the generated variable codeword.

15. (CURRENTLY AMENDED) The method of claim 13 further comprising:

(e) receiving the sampled versions of the plurality of radio frequency carrier signals for storage in the DRFM prior to identifying an activation scheme.

16. (ORIGINAL) The method of claim 14 further comprising receiving an indication whether the activation signal transmitted successfully operated the barrier operating system.

17. (ORIGINAL) The method of claim 13 further comprising:

(d) receiving an activation signal from the barrier operating system transmitter, the received activation signal having a fixed codeword;

(e) storing the fixed codeword of the received activation signal; and

(f) sampling the carrier signal of the received activation signal, the sampled carrier signal and the stored fixed codeword for use in transmitting an activation signal.

18. (ORIGINAL) The method of claim 17 further comprising transmitting an activation signal comprising the sampled carrier signal modulated with the stored fixed codeword.

19. (CANCELLED)

20. (PREVIOUSLY PRESENTED) The method of claim 17 wherein sampling the carrier signal of the received activation signal includes using the DRFM to sample the carrier signal of the received activation signal.